

# MEMO

**To:** Brian Freeman, U.S. EPA Region 5 Work Assignment Manager  
Jonathan Adenuga, Technical Advisor

**From:** Terry Uecker, TechLaw Work Assignment Manager  
Demaree Collier, Field Team Leader *DC*

**Subject:** LTV Steel Site Visit Report - February 23, 2000

**Date:** March 3, 2000

US EPA RECORDS CENTER REGION 5



1004172

This memorandum summarizes the site visit conducted by U.S. EPA, with the assistance of TechLaw on February 23, 2000 at LTV Steel in East Chicago, Indiana. The site visit was conducted under REPA Work Assignment No. R05705.

Upon arrival at the site, an initial meeting was conducted. During the meeting, LTV Steel (LTV) personnel were presented with the locations that U.S. EPA and the Indiana Department of Environmental Management (IDEM) wanted to view based upon previous investigations. It was agreed that LTV personnel would escort everyone to the locations indicated. LTV asked to be provided a copy of the photographs that would be taken during the site visit. It was stated during the meeting that the area of the coke manufacturing operations no longer existed and most buildings in that area had been demolished. It was further indicated that Mr. Wayne Gould, Assets Management Section of LTV, was in charge of the areas that had been demolished and could possibly assist in locating specific areas within this section of the site that were of concern for potential future sampling.

The following is a list of areas or Solid Waste Management Units (SWMUs) that were viewed during the site visit:

"The Hill" (SWMU 7)	Ferrous Chloride Waste Tanks
Terminal Lagoon (SWMU 10)	Waste Tin Line Washwater Tank
Ladle Metallurgy Facility Baghouse (SWMU 11)	(SWMU 44)
Basic Oxygen Furnace (SWMU 15)	No. 2 Tin Mill Waste Sodium Dichromate
Clark Materials Landfill (SWMU 20)	Truck Loading Station (SWMU 45)
Filter Backwash Pile (SWMU 23)	No. 2 Tin Mill Waste Chromic Acid Tank
Concrete Sludge Drying Beds (SWMU 27)	(SWMU 50)
No. 3 Sheet Mill Spent Pickle Liquor Tanks	Coke Plant Decanter Site (SWMU 65)
(SWMU 28 and 29)	Old Quenching Area (SWMU 73)
Former Cadence Tank (SWMU 35)	

During the site visit, Mr. Mike Thomas of LTV stated that the Old Quenching Area (SWMU 73) never existed. Access to the area that was reportedly the location of SWMU 73 was not possible due to the dangerous activities currently being performed at this location. However, the area was viewed from a distance.

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Also, visible blue staining was noted on the ground at the No. 2 Tin Mill Waste Sodium Dichromate Truck Loading Station (SWMU 45). It was stated by Mr. Alan Cross of LTV that a blue dye is added to the waste managed at SWMU 45. However, for the purpose of future reference it should be determined when the dye is added to the waste stream. If the dye is added before the waste sodium dichromate is pumped into the trucks, the visible staining around the ground surface could be an indication of contamination since the "blue areas" could contain waste sodium dichromate.

cc: F. Norling, EPA Region 5, w/out attachments  
W. Jordan, Central Files  
Chicago Central Files

**APPENDIX A**

**Photograph Log from 23, 2000  
Site Visit**



Photo No.: R1P1  
Direction: Southeast

Date: February 23, 2000  
Time: 1148

Description: View of the Former Cadence Tank Area (SWMU 35) which is currently an above ground storage tank (AST) containing Fuel Oil #6. The photo was taken from directly on top of the bermed area surrounding the AST. Note the water pooled around the bottom of the AST and the sheen on the surface of the water.





Photo No.: R1P2  
Direction: Southeast

Date: February 23, 2000  
Time: 1150

Description: View of the AST containing Fuel Oil #6, which is located at the Former Cadence Tank Area (SWMU 35). This photo was taken from the bottom of the bermed area, looking upward.





Photo No.: R1P3 - R1P4  
Direction: North - Northeast

Date: February 23, 2000  
Time: 1156

Description: Panoramic view of the Terminal Lagoon Area (SWMU 10). A scale pit exists near the lagoon area. Water from the steel plant flows through the scale pit and is then processed at this SWMU. Note in the background of the photo the large pile of Basic Oxygen Furnace (BOF) dust transported here from the BOF.





Photo No.: R1P5 - R1P6  
Direction: Southeast

Date: February 23, 2000  
Time: 1206

Description: Panoramic view of the Ladle Metallurgy Facility Baghouse (SWMU 11) and the roll off box containing hazardous cadmium waste. There is a concrete pad underlying the roll off box, but there does not appear to be any containment located underneath the Baghouse. Note the fill start date on the hazardous waste roll off is labeled 2-18-00.





Photo No: R1P7  
Direction: Southeast

Date: February 23, 2000  
Time: 1207

Description: Full length photograph of the Ladle Metallurgy Facility Baghouse (SWMU 11).  
Hazardous cadmium waste roll off box is obscured by van on side of Baghouse.





Photo No.: R1P8 - R1P10  
 Direction: North - Northeast

Description: Panoramic view of the Clark Landfill  
 empty but bulged out on the top and b



side o





Photo No.: R1P11 - R1P13  
Direction: North - Northeast

Description: View of SWMU 7, "The Hill". "The Hill" was stated to be used as a landfill for steel mill wastes, although LTV persons disposed of at this landfill. This SWMU is no longer in operation. Note on the left side of the photo the ditch containing treatment plant.





Photo No.: R1P14  
Direction: Southeast

Date: February 23, 2000  
Time: 1258

Description: Photo of the former Concrete Sludge Drying Beds (SWMU 27). A concrete wall used to surround the beds, and reportedly contained the sludge. It is unclear if there was a concrete floor under the drying beds. The concrete wall no longer exists and the area of the SWMU is now covered with piles of debris.





Photo No.: R1P15  
Direction: Southwest

Date: February 23, 2000  
Time: 1306

Description: Photograph of the area where the Filter Backwash Pile (SWMU 23) formerly existed. The location of this SWMU is in the area near the pickup truck in the photo (center of photo). This pile no longer exists and now is a concrete-lined pit.



New photo looks  
different from old.  
New photo shows 1 AST?  
and containment-concrete  
wall. Old photo show  
no containment and 2 AST

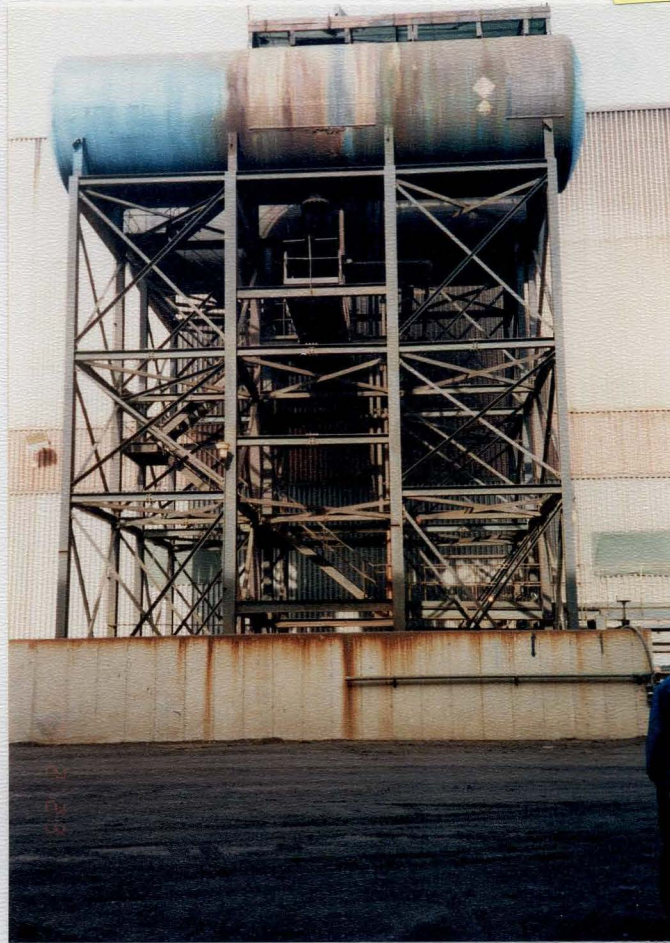


Photo No.: R1P16  
Direction: North

Date: February 23, 2000  
Time: 1315

Description: View of the Spent Pickle Liquor Tanks (SWMU 28 and 29). Note the staining on the concrete wall which may be considered as secondary containment.





Photo No.: R1P19  
Direction: South

Date: February 23, 2000  
Time: 1410

Description: View of the Waste Tin Line Washwater Tank (SWMU 44). Note the metal structure beneath the tank is labeled "Hazardous Waste".



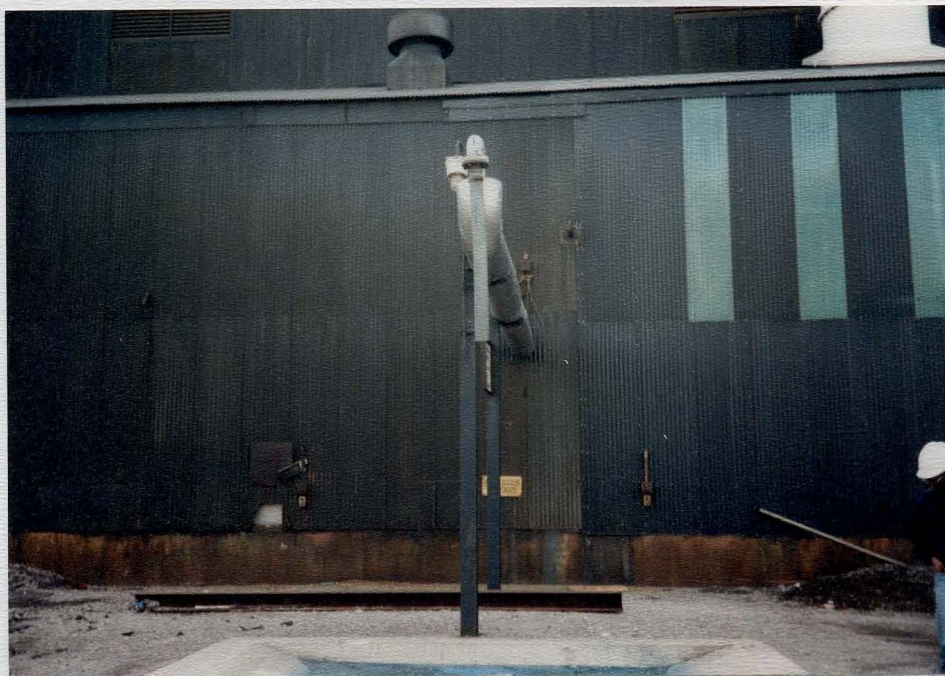


Photo No.: R1P20  
Direction: South

Date: February 23, 2000  
Time: 1420

Description: View of the No. 2 Tin Mill Waste Sodium Dichromate Truck Loading Station (SWMU 45). Note the blue staining in the bottom of the loading basin. Also, there were several areas on the gravel surrounding the loading basin that had blue staining.



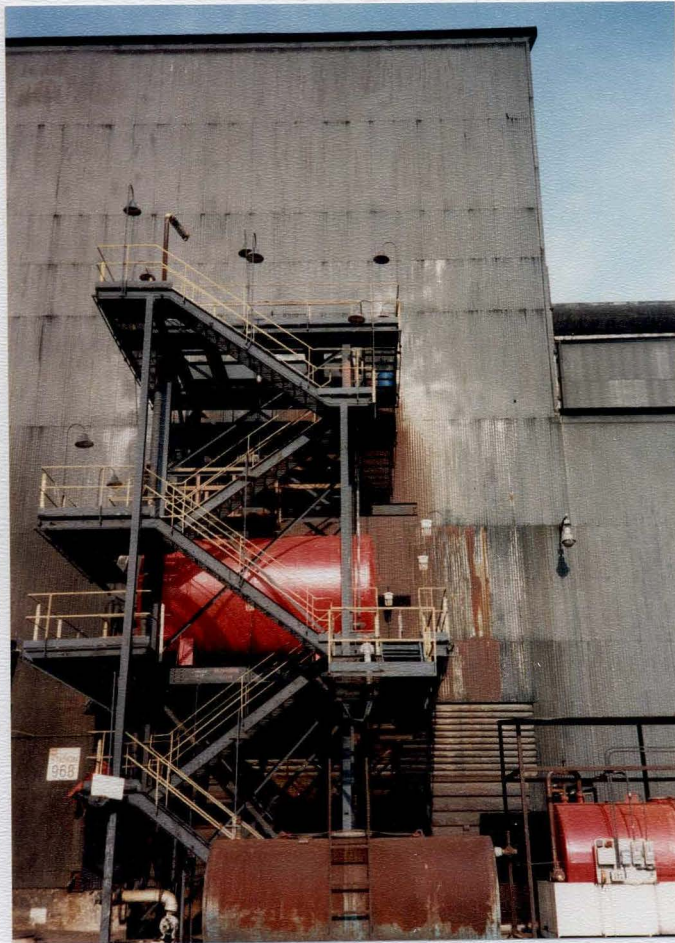


Photo No.: R1P21  
Direction: East

Date: February 23, 2000  
Time: 1435

Description: Photograph of the No. 2 Tin Mill Waste Chromic Acid Tank (SWMU 50) located on the middle level of the scaffolding. In the photos from the 1992 RCRA Facility Assessment Report, a second tank was previously located on the upper level of the scaffolding. Note the staining/rust on the building.





Photo No.: R1P22  
Direction: Northeast

Date: February 23, 2000  
Time: 1436

Description: View of the truck wash station at the No. 2. Tin Mill Waste Chromic Acid Station (SWMU 50). New concrete and gravel appear to have recently been placed in this area.





Photo No.: R1P17  
Direction: Northeast

Date: February 23, 2000  
Time: 1316

Description: Photograph of the ferrous chloride waste tanks. The tanks appear to be labeled as hazardous. Note the staining on the concrete berm around the tanks.





Photo No.: R1P18  
Direction: Southwest

Date: February 23, 2000  
Time: 1349

Description: Photo of the former Coke Plant Decanter Site (SWMU 65). The coke manufacturing operations at the site no longer exist. The area is now covered with scrub brush and the majority of buildings have been demolished in this area.



## **APPENDIX B**

### **Field Notes from 23, 2000 Site Visit**



*"Rite in the Rain"*®

ALL-WEATHER WRITING PAPER



## HORIZONTAL LINE

All-Weather Notebook

No. 391

LTV Steel
February 23, 00'

4 5/8" x 7" - 48 Numbered Pages



2/23/00

arrived at site 1000 met  
with IDEM personnel:

Mike Sickels  
Ruth Williams  
Chris Myer

arranged SWMUs on site map in  
order to be prepared for meeting (present  
areas to view for potential sampling).  
1045 drove into site to meet with  
LTV personnel

Mike Thomas - LTV  
Alan Cross - LTV

- began meeting to discuss the  
locations with LTV. (will take  
pictures & provide LTV with pictures).
- Wayne Gould - LTV → Assets Management Section  
in charge of areas that have  
been demolished

DSC 2/20/00

It appears that a portion of  
the area has been demolished  
in the past which contained  
areas of potential sampling. Unable  
to identify areas now since  
all buildings have been demolished.  
The Assets Mgmt. Branch could  
potentially locate these areas  
of land.

- Going on site tour 1135.  
Former Cadence Tank is first stop.  
(SWMU 10 area) → FKA 312  
35 ore

- fuel oil # 6 tank.

RIP1  
1148

2/23/00  
SE

view of the fuel oil # 6 tank. Note  
water and sheen floating on water.  
Picture from atop of berm.

DSC 2/23/00



RIP2  
1150

2/23/00  
SE

Photo of the #6 fuel oil tank  
from bottom of berm looking  
up.

water was all around the bottom  
of the tank. Sheen floating  
on top.

- Terminal Lagoon SWMU 10

RIP3 + RIP4  
1156

2/23/00  
N - NE

view of the Terminal Lagoon (SWMU 10)

there is a scale pit ahead of the  
Terminal Lagoon which has the  
major water flow from the  
steel plant + then processed through  
this system.

DSC 2/23/00

In photo RIP3 - RIP4 - note the  
Basic Oxygen Furnace (BOF)  
dust.

SWMU <sup>DSC 413</sup>

SWMU 11 - LMF Baghouse

RIP5 - RIP6  
1206

2/23/00  
SE

view of the LMF Baghouse and the  
roll off containing hazardous waste  
cadmium.

Note on photo RIP5 the fill start date  
on the haz. waste roll off is  
2-18-00.

Concrete underneath roll off box -  
does not appear to be any concrete or  
containment under baghouse.

DSC  
2/23/00



RIP7  
1207

2/23/00  
SE

view of baghouse & containment  
for waste cadmium.

SWMU 15

Basic Oxygen Furnace that  
generates BOF dust.

generated here and then  
trucked over to the pile for  
~~baghouse~~ BOF dust (Photo RIP3-RIP4)

no photos taken  
at this SWMU.

DSC  
2/23/00

DSC 2/23  
~~Landfill~~

Clark Materials Landfill  
(contractor that ran landfill was called Clark)

RIP8-RIP10  
1218

2/23/00  
N-NE

<sup>DSC</sup>  
view panoramic view of the Clark landfill.

Photo RIP10 - note drums & scrap materials  
in the foreground.

SWMU 7 - "The Hill" - no longer in  
operation

The Hill was used for "steel mill waste" -  
no definite knowledge of what was  
disposed of in this SWMU.

RIP11-RIP13  
1240

2/23/00  
N-NE

view of "the Hill" - note the scrub  
grass on "the Hill"

DSC 2/23/00



Note in RIP11 the wastewater running to the wastewater treatment plant.

SWMU 27 - Concrete Sludge Drying Beds

- was concrete walls here - gone now - do not know if there was a floor in these drying beds. no longer used as drying beds. Pile is now debris on top of where drying beds were located.

RIP14  
1258

2/23/00  
SE

view of former concrete sludge drying beds (SWMU 27). The concrete wall no longer exists and debris now covered on top of drying beds.

OSC  
2/23/00

SWMU 26 was in an excavated area and is now gone.

SWMU 23 (filter backwash pile) was located in the area of SWMU 27. The pile no longer exists.

RIP15  
1306

2/23/00  
SW

view of SWMU 23's former location near blue pick up truck.

Note: a concrete lined pit now exists where SWMU 23 was located

No. 3 Sheet Mill <sup>spent</sup> Pickle Liquor Tank  
(SWMU 28 and SWMU 29)

DJL  
2/23/00



RIP16  
1315

2/23/00  
N

view of the spent pickle liquor tanks (swmu 28+29). Note the staining on the concrete <sup>berm</sup> which may possibly be considered secondary containment.

PIP17  
1316

2/23/00  
NE

view of the ferrous chloride (waste) tanks & the staining on the concrete berm. These tanks are labeled as hazardous.

According to LTV Steel (Mike Thomas) swmu 43 never existed. It was stated that ~~that~~ <sup>the</sup> quenching area never was staged and never happened.

DSC  
2/23/00

swmu 65 - Coke Plant  
Decanter Site

- no longer in existence. LTV does not manufacture coke any longer. It is all shipped in now.

RIP18  
1349

2/23/00  
SW

View of the former swmu 65 - Area is now scrub brush & all coke plant buildings (decanter) are removed from this area.

swmu 50 → Foot waste  
swmu 45 → Doo7 waste

swmu 50 is a new structure now → replacing old swmu 50.

→ ALL SMWU 50s  
on this pg are 44 swmu

DSC  
2/23/00



RIP19  
1410

2/23/00  
S

#2 Waste Chromic Acid Tank  
Area (former SWMU 50).  
Now concrete catch basin  
in area.

↳ picture is actually SWMU 44.

SWMU 45 - waste sodium  
dichromate loading area

RIP20  
1420

2/23/00  
S

view of the waste sodium dichromate  
loading area (SWMU 45).  
note the blue staining in  
basin and building bottom. Also  
note the blue around the  
outside of basin.

DSC 2/23/00

SWMU 50 (waste chromic acid tanks)

RIP21  
1435

2/23/00  
E

view of the chromic acid (SWMU 50)  
tank on 2nd level. Note  
the rust on the building  
and the absence of a tank  
on the top level - present  
in RFA -

RIP22  
1436

2/23/00  
NE

view of truck wash station at  
SWMU 50. Note the new concrete  
and gravel in area.

left site at 1500.

DSC 2/23/00



Outfalls 1 & 2

Outfall 01

Outfalls 009 & 010

OLD  
COKE  
OPERATION  
AREA



Steel

INDIANA HARBOR WORKS

HARB PPT

JWF - 1997

23 FEB 2000

LTV INDIANA HARBOR WORKS.

RCRA Corrective Action Meeting

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LTV

219391-284

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IDEM

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